

Please check that this question paper contains **7** questions and **7** printed pages.

CLASS-XI
INFORMATICS PRACTICES

Time Allowed : 3 Hrs.**Maximum Marks : 70**

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1. (a) (i) What is Communication Port ? Identify the type of port : (1+½+½=2)
- A. An 8 wire port/connector that is used for Ethernet connections can also be used between networked devices, such as Modem or Network hub.
- B. A serial port that is used for short distance digital data communications allows data transfer between devices with little electric power.
- (ii) Why is there a need for Secondary storage devices when Primary Memory already exists in our system ? Give example of any one optical and one magnetic Secondary storage Device. (1+½+½=2)
- (b) Mrs. Kumar visited a shopping mall to purchase household grocery. Name any two input devices she will come across at the bill counter ? (½+½=1)
- (c) (i) Write the full forms of (A) OMR (B) IDE (½+½=1)
- (ii) Identify the type of software (½+½=1)
- A. It is a boot firmware, a small program that controls various electronic devices attached to the main computer system.
- B. Utility software that helps us to send heavy files from one computer to another, by reducing the storage size of any computer program/file.
- (d) (i) Define the term Cyber Crime ? (1+1=2)
- (ii) "The destruction from a worm is less alarming than a virus". Justify this statement.
- (e) ASCII is a 7-bit code and ISCII is a 8-bit code. What is the advantage of ISCII over ASCII ? (1)
2. (a) Which property implies that the contents of this component can be changed at run time ? (1)
- (i) setEnabled(true)

- (ii) `setEditable(true)`
 - (iii) `setVisible (true)`
 - (iv) `setText(“”)`
- (b) Find the value of ‘t’ after the execution of following code and why? ($\frac{1}{2}+\frac{1}{2}=1$)
- ```

if(10<9 || 67>75)
 t = 100000;
else
 t=20000;

```
- (c) What will be the output of the following code segment and why? ( $\frac{1}{2}+\frac{1}{2}+1=2$ )
- ```

String Place = “Delhi”;
String Pincode = “11006”;
String PlacePincode = Place+Pincode;
jTextField1.setText(“PlacePincode”);
JTextField2.setText(PlacePincode);

```
- (d) What are Run time errors ? Give example. ($\frac{1}{2}+\frac{1}{2}=1$)
- (e) Ritu orders Burger and Pasta from the Menu List given below. Study the code given below and find the Total bill. (2)

Pizza	▼
Burger	
Pasta	
Juice	▲

```

intTotlBill=0;
if (jList1.isSelectedIndex(0)==true)
TotalBill=TotalBill+125;
if(jList1.isSelectedIndex(1)==true)
TotalBill=TotalBill+55;
if(jList1.isSelectedIndex(2)==true)
TotalBill=TotalBill+100;
if(jList1.isSelectedIndex(3)==true)
TotalBill=TotalBill+50;

```

- (f) Rewrite the code given below using while loop ? (1+1=2)
- ```

int p = 3;
do {
 p = p + 2;
}while (p <15);

```
- How many times will the loop execute ?

- (g) Study Code A and Code B. What difference does “else” make in the functioning of the Radio Button Control. ( $\frac{1}{2} + \frac{1}{2} = 1$ )

| <b>Code A</b>                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>if(jRadioButton1.isSelected()) jTextField1.setText("Football"); else if (jRadioButton2.isSelected()) jTextField1.setText("Cricket"); else if (jRadioButton3.isSelected()) jTextField1.setText("Hockey");</pre> |

| <b>Code B</b>                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>if(jRadioButton1.isSelected()) jTextField1.setText("Football"); if(jRadioButton2.isSelected()) jTextField1.setText("Cricket"); if(jRadioButton3.isSelected()) jTextField1.setText("Hockey");</pre> |

3. (a) Write the names of any two DBMS. ( $\frac{1}{2} + \frac{1}{2} = 1$ )
- (b) Seema has created a table CUSTOMER with the following specifications. (1+1+2)

| Attribute | Datatype | Length |
|-----------|----------|--------|
| CNo.      | Varchar  | 3      |
| CName     | Varchar  | 10     |

The SQL command given below gives an error. Why ?

INSERT INTO CUSTOMER VALUES("01", "K.V.S. NARAYAN");

What suggestion will you give to Seema to insert the data given below:

| CNo. | CName          |
|------|----------------|
| 01   | K.V.S. NARAYAN |

- (c) Is select a DDL or DML. Justify. (1)
- (d) Consider the table TEACHER given below :

| Teacher_ID | Teacher_Name | Subject | Designation | Dt_of_App  |
|------------|--------------|---------|-------------|------------|
| 011        | Gurjeet      | Science | TGT         | 2009-07-01 |
| 012        | Sonia        | Hindi   | TGT         | 2010-07-02 |
| 013        | Sakshi       | English | PGT         | 2011-01-01 |
| 014        | Arushi       | Hindi   | TGT         | 2013-06-05 |
| 015        | Sangeeta     | Science | TGT         | 2000-02-01 |
| 016        | Minal        | English | TGT         | 1996-05-10 |
| 017        | Rajesh       | Maths   | PGT         | 1995-07-10 |

Write SQL query:

- (1) To create the table TEACHER (2)
- (2) To insert the third record in the above table. (1)
- (3) To display details of TGT teachers teaching science. (1)
- (4) To display the subjects taught by the teachers. (subjects should not be repeated) (1)
- (5) To display the names and subject of teachers who joined after 1st July 2010. (1)

4. (a) Shalini works as a programmer in a Mobile Company. She has developed the following code to display mobile details according to user's choice. Help her in rewriting the same code using SWITCH CASE: (2)

```
if(choice==1)
jTextField1.setText("Business");
else if(choice==2)
jTextField1.setText("Photography");
else if(choice==3)
jTextField1.setText("Games");
else
jTextField1.setText("Selfie");
```

- (b) Identify the errors and rewrite the correct code. Underline the corrections made. (2)

```
int n1,n2;
n1 = Integer.parseInt(jTextField1.getText());
n2 = Integer.parseInt(jTextField2.getText());
if (n1 > n2)
{
JOptionPane.showMessageDialog(this, n1+" is greater");
}
else
{
JOptionPane.showMessageDialog(this, n2+" is greater");
```

- (c) (i) What is a variable ? (1+1+2=4)  
(ii) Identify the acceptable variable names

2ndGrade, \$school, \_Grade, #grade, else

- (iii) Write java code to assign value 65 to variable num1. Then multiply the value of num1 with 10 and store it in variable result.  
(d) `textField1.setText("Welcome");` ( $\frac{1}{2} + \frac{1}{2} = 1$ )

In the example identify the (i) Object (ii) Method

- (e) In a school each student applying for admission in Nursery class gets points according to the criteria given below. The Programmer at the school has developed a GUI application as shown below : (3+2+1=6)

**INDIAN SCHOOL**

Name

Application No.

| Criteria                                                     | Points                                      |
|--------------------------------------------------------------|---------------------------------------------|
| <input type="checkbox"/> Distance within a radius of 0-12 Km | : <input style="width: 50px;" type="text"/> |
| <input type="checkbox"/> Sibling                             | : <input style="width: 50px;" type="text"/> |
| <input type="checkbox"/> Staff Child                         | : <input style="width: 50px;" type="text"/> |
| Total Points <input style="width: 50px;" type="text"/>       |                                             |

| Criteria                            | Points |
|-------------------------------------|--------|
| Distance within a radius of 0-12 Km | 70     |
| Sibling                             | 20     |
| Staff Child                         | 20     |

- (i) Help the programmer to write code for the following :
- When “Total Points” button is clicked the points for each criterion that is selected should be displayed in the Text field in front of the criteria check box. Total Points is calculated (sum of the points of whichever criteria is selected) and displayed in the appropriate Text field.

- (ii) When Clear button is clicked, all the Text fields and Checkboxes should be cleared.
  - (iii) When Stop button is clicked, the application should close.
5. (a) Sheela has created a table HOSPITAL having eight attributes and seven tuples. There are four attributes which uniquely identify each record. Primary key is a single attribute. (1+1=2)
- A. How many candidate keys and alternate keys are there in table HOSPITAL ?
  - B. What is the degree and cardinality of the table ?
- (b) Name the MySQL commands for the following purpose : (2)
- (i) To open any database
  - (ii) To add a new row.
  - (iii) To see the structure of a table
  - (iv) To delete a row.
- (c) Write MySQL statements for the following : (4)
- (i) To display the day on 2017-01-01. (e.g. Monday, Tuesday)
  - (ii) Extract the position of substring “ear” from string “Google Search Engine”
  - (iii) Extract the substring “form” from “Informatics”.
  - (iv) Display the value of a fractional number 892.278 as 890.
- (d) Select concat(“Hello”, NULL, “Studnets”) will give the output as (1)
- (i) HellowNULLStudents
  - (ii) HellowStudents
  - (iii) NULL
  - (iv) Hello
- (e) Distinguish between NOW () and SYSDATE () functions. (1)
6. (a) Consider the table TOY given below : (1+1+2=4)

| Tcode | Tname       | Brand    | Price  | Qty |
|-------|-------------|----------|--------|-----|
| T01   | Car         | Funtime  | 150.50 | 10  |
| T02   | Teddy Bear  | Soft     | 120.50 | 15  |
| T03   | Doll        | Soift    | 110.00 | 20  |
| T04   | Memory game | Playtime | 175.00 | 5   |
| T05   | Board game  | Playtime | 99.00  | 10  |
| T06   | Blocks      | Funtime  | 68.00  | 20  |

Write SQL queries:

- (i) To display the Toy code, name, price and quantity in descending order of price.
- (ii) To display the details of toys whose brand is either “Funtime” or “Playtime”
- (iii) To increase the price of toys by 5% where quantity is less than 15.

(b) Write the output for the SQL queries given below: (1×6=6)

- (i) Select Ucase(Tname) from Toy;
- (ii) Select Length(Brnad) where qty<=15;
- (iii) Select Mid(Tname,1,3);
- (iv) Select Truncate(Price,-1) where price>100;
- (v) Select Brand from Toy where Tnamelike “%game”;
- (vi) Select Pow(2, -3);

7. (a) How can e-learning be beneficial to students ? Give two popular websites of e-learning. (2)

(b) Anu works in a library. She wishes to create controls on a form for the following functions. Suggest controls to her. Choose appropriate controls from Text box, Label, Radio button, Check box, List box, Combo box, Command button, Text Area. (2)

| Control Used to        | Control |
|------------------------|---------|
| Enter Member Name      |         |
| Choose Gender (M or F) |         |
| Address                |         |
| Submit Form            |         |

(c) What do you understand by MOOCS ? (1)